

**WHAT IS CLAIMED IS:**

1. An image sensor comprising:
  - (a) a semi-conducting substrate having a photo-sensitive region and doping for forming a path to a charge-to-voltage mechanism;
  - (b) a dielectric spanning the substrate; and
  - (c) a semi-conducting layer, which is less than approximately 1 micrometer, spanning the dielectric which contains electrodes and circuit elements that control flow of charge.
2. The image sensor as in claim 1, wherein the semi-conducting substrate and semi-conducting layer are silicon.
3. The image sensor as in claim 2, wherein the dielectric is silicon dioxide.
4. The image sensor as in claim 3, wherein the semi-conducting substrate includes an epitaxial layer.
5. The image sensor as in claim 1 further comprising doping for a reset transistor in the semi-conducting substrate and a reset gate in the semi-conducting layer.
6. The image sensor as a claim 1, wherein the photo-sensitive region is a photodiode.
7. The image sensor as in claim 1, wherein the charge-to-voltage mechanism is a floating diffusion.
8. The image sensor as in claim 1, wherein the image sensor is a CMOS image sensor.

9. A method for creating an image sensor comprising the steps of:

- (a) providing a substrate;
- (b) providing the substrate with a dielectric;
- (c) providing a semi-conducting layer on the dielectric; and
- (d) implanting through the dielectric and semi-conducting layer

into the substrate for forming a photo-sensitive region, a transfer gate channel and charge-to-voltage mechanism.

10. The method as in claim 9 further comprising forming an isolation region adjacent the photodiode.

11. A method for creating an image sensor comprising the steps of:

- (a) forming a substrate;
- (b) covering the substrate with a dielectric;
- (c) implanting through the dielectric into the substrate for forming a photodiode, a transfer gate channel and floating diffusion; and
- (d) bonding a semi-conducting layer onto the dielectric.

12. A camera comprising:  
an image sensor comprising:  
(a) a semi-conducting substrate having a photo-sensitive region and doping for forming a path to a charge-to-voltage mechanism;  
(b) a dielectric spanning the substrate; and  
(c) a semi-conducting layer, which is less than approximately 1 micrometer, spanning the dielectric which contains electrodes and circuit elements that control flow of charge.

13. The camera as in claim 12, wherein the semi-conducting substrate and semi-conducting layer are silicon.

14. The camera as in claim 13, wherein the dielectric is silicon dioxide.

15. The camera as in claim 14, wherein the semi-conducting substrate includes an epitaxial layer.

16. The camera as in claim 12 further comprising doping for a reset transistor in the semi-conducting substrate and a reset gate in the semi-conducting layer.

17. The camera as in claim 12, wherein the photo-sensitive region is a photodiode.

18. The camera as in claim 12, wherein the charge-to-voltage mechanism is a floating diffusion.

19. The camera as in claim 12, wherein the image sensor is a CMOS image sensor.